

IN THE CLAIMS

Please amend the claims as follows.

1. (Currently Amended) Lighting device comprising
an at least partly transparent substrate, and
a light source made integrally on a first face of said substrate, said light source including
at least a positive electrode and a negative electrode to supply electric power, interacting with
each other and between which at least a luminescent layer of ~~the an~~ organic-led type (OLED) is
located,
said substrate being able to diffuse the light generated by said organic-led type
luminescent layer,
a lenticular optical element being associated on the opposite face of said substrate,
said lenticular optical element to diffuse the light beam emitted by said light source
comprising a plurality of micro-lenses directly molded, by means of a pre-formed mold, on a
second face of said substrate opposite to the first face to constitute, with said organic led light
source, an integrated structure to generate, emit and direct the light,
each one of said micro-lenses being coupled with a relative point of light emission of said
light source to direct and shape the relative light beam emitted,
wherein each said micro-lens has its relative center located laterally shifted with respect
to the relative point of light emission.

2. (Previously presented) Device as in claim 1, wherein each of said points of light
emission consists of crossing points, or pixels, between said positive electrode and said negative
electrode.

3. (Previously presented) Device as in claim 1, wherein each of said points of light emission comprises crossing points, or pixels, between said positive electrode and said negative electrode.

4. (Previously presented) Device as in claim 1, wherein said lateral shift is achieved with respect to one and/or the other of the main axes (x, y) of the relative micro-lens.

5. (Previously presented) Device as in claim 1, wherein at least some of said micro-lenses are of the diffractive type to divert and direct the ray of light emitted by the relative point of light emission.

6. (Previously presented) Device as in claim 1, wherein said micro-lenses have a thickness of between 1 and 100 micron (μm).

7. (Previously presented) Device as in claim 1, wherein said micro-lenses have a lateral size of between 5 and 1000 micron.

8. (Previously presented) Device as in claim 1, wherein the micro-lenses of a relative lenticular optical element are all equal to each other.

9. (Previously presented) Device as in claim 1, wherein one of the plurality of micro-lenses of a relative lenticular optical element comprises a different geometric

configuration than at least one other micro-lens of the plurality of micro-lenses in order to direct and shape the light beam emitted by the relative point of light emission to achieve a desired effect.

10. (Previously presented) Device as in claim 1, wherein said substrate is made of plastic material.

11. (Previously presented) Device as in claim 1, wherein said substrate is made of at least partly flexible glass.

12. (Previously presented) Method to produce lighting devices comprising at least an organic led-type multi-layer light source and at least an optical system to diffuse and direct the light beams, comprising at least an at least partly transparent substrate, at least a lenticular optical element being associated with one face of said substrate opposite to the face where said light source is provided,

said light source including at least a positive electrode and a negative electrode to supply electric power, interacting with each other and between which at least a luminescent layer of the organic-led type multi-layer light source is located,

comprising the steps of:

directly molding said lenticular optical element, by means a pre-formed mold, on said substrate to obtain a plurality of micro-lenses each of which is coupled with micrometric precision at least with regard to the positioning with respect to an individual point of emission of said organic led light source,

wherein each said point of light emission consists of crossing points, or pixels, between said positive electrode and said negative electrode,

wherein the micro-lenses of said lenticular optical element are positioned laterally shifted with respect to the corresponding crossing point, or pixel, between said positive electrode and said negative electrode.

13. (Previously presented) Method as in claim 12, wherein the molding is performed with nickel molds on which the impressions corresponding to the lenticular optical matrix are obtained with the step and repeat technique.

14. (Previously presented) Method as in claim 12 wherein said molding is performed hot.

15. (Previously presented) Method as in claim 14, wherein the hot molding is performed on an industrial scale with a hot-embossing technique.

16. (Previously presented) Method as in claim 12, wherein said molding is performed cold.

17. (Previously presented) Method as in claim 12, wherein the micro-lenses of a same lenticular optical element are all made equal to each other.

18. (Previously presented) Method as in claim 12, wherein the micro-lenses of a same lenticular optical element comprise different geometric configurations to perform specific functions of directing and shaping the light beam emitted by the relative point of light emission.

19. (Previously presented) Method as in claim 12, wherein said molding takes place after said substrate has been associated with the light source.

20. (Previously presented) Method as in claim 12, wherein said molding takes place before the light source has been associated with said substrate.

21. (Cancelled).

22. (Previously presented) Device as in claim 1, wherein said micro-lenses have a thickness of between 1 and 40 micron (μm).

23. (Previously presented) Device as in claim 1, wherein said micro-lenses have a lateral size of between 10 and 300 micron (μm).

24. (New) The device according to claim 1, wherein the lenticular element is made directly on the opposite face of said substrate.

25. (New) The device according to claim 1, wherein said micro-lenses are embossed directly in the opposite face of said substrate.

26. (New) A lighting device comprising:

a transparent substrate having a inner face and an outer face opposite the inner face, the outer face comprising an outer surface of the lighting device,
a multi-point light source made integrally on the inner face of said transparent substrate, said light source including at least a positive electrode and a negative electrode to supply electric power, interacting with each other and between which at least a luminescent layer of the organic-led type (OLED) is located,

said transparent substrate being able to diffuse the light generated by said organic-led type luminescent layer,

a first lenticular optical element comprising a plurality of micro-lenses formed on the outer face of said transparent substrate cooperating with the multi-point light source,
said micro-lenses diffuse the light beam emitted by said light source on the outer face of said substrate to constitute, with said organic led light source, an integrated structure to generate, emit and direct the light,

each one of said micro-lenses being coupled with a relative point of light emission of said light source to direct and shape the relative light beam emitted,

wherein each said micro-lens has its relative center located laterally shifted with respect to the relative point of light emission.

27. (New) The device according to claim 26, further comprising a second lenticular optical element on the inner face of the substrate.